## EAST Search History

| Ref # | Hits  | Search Query   | DBs   | Default<br>Operator | Plurals | Time Stamp          |
|-------|-------|--|---|---------------------|---------|---------------------|
| L3    | 60149 | crystallization with<br>temperature  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ                 | ON      | 2008/05/21<br>15:15 |
| L4    | 412   | L3 and (gete or "sb.<br>sub.2Te.sub.3")  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ                 | ON      | 2008/05/21<br>15:16 |
| L7    | 43    | L3 with (gete or ("sb.sub.2"<br>"Te.sub.3") or ("sb.sub.2Te.<br>sub.3"))             | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ                 | ON      | 2008/05/21<br>15:18 |
| L8    | 15    | L3 with (("Ge.sub.2" "Sb.<br>sub.2" "Te.sub.5") or ("Ge.<br>sub.2Sb.sub.2Te.sub.5")) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ                 | ON      | 2008/05/21<br>15:30 |
| L12   | 110   | @ad<="20040219" and<br>"GeTe" same "Sb.sub.2Te.<br>sub.3"                            | US-PGPUB;<br>USPAT; USOCR   | ADJ                 | ON      | 2008/05/21<br>15:35 |
| S1    | 15    | ((TOW) near2 (CHONG)).<br>INV.   | US-PGPUB;<br>USPAT; USOCR   | ADJ                 | ON      | 2008/05/13<br>19:00 |
| S2    | 37    | ((LU) near2 (SHI)).INV.  | US-PGPUB;<br>USPAT; USOCR   | ADJ                 | ON      | 2008/05/13<br>19:00 |
| S3    | 3     | ((RONG) near2 (ZHAO)).<br>INV.   | US-PGPUB;<br>USPAT; USOCR   | ADJ                 | ON      | 2008/05/13<br>19:00 |
| S4    | 2     | ((XIANG) near2 (MIAO)).<br>INV.  | US-PGPUB;<br>USPAT; USOCR   | ADJ                 | ON      | 2008/05/13<br>19:00 |
| S5    | 2     | ((PIK) near2 (TAN)).INV.   | US-PGPUB;<br>USPAT; USOCR   | ADJ                 | ON      | 2008/05/13<br>19:01 |
| S6    | 1     | ((HAO) near2 (MENG)).<br>INV.  | US-PGPUB;<br>USPAT; USOCR   | ADJ                 | ON      | 2008/05/13<br>19:01 |
| S7    | 33    | ((KAI) near2 (YI)).INV.  | US-PGPUB;<br>USPAT; USOCR   | ADJ                 | ON      | 2008/05/13<br>19:01 |
| S8    | 2     | ((XIANG) near2 (HU)).INV.  | US-PGPUB;<br>USPAT; USOCR   | ADJ                 | ON      | 2008/05/13<br>19:01 |
| S9    | 45    | ((KE) near2 (LI)).INV.   | US-PGPUB;<br>USPAT; USOCR   | ADJ                 | ON      | 2008/05/13<br>19:01 |

| S10         | 31  | ((PING) near2 (LUO)).INV.   | US-PGPUB;<br>USPAT; USOCR   | ADJ | ON  | 2008/05/13<br>19:01 |
|-------------|-----|---|---|-----|-----|---------------------|
| S11         | 3   | (S1 or S2 or S3 or S4 or S5 or S6 or S7 or S8 or S9 or S10) and ((phase near3 chang\$3) and (layer or film)).clm.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/13<br>19:02 |
| S12         | 1   | ("5912839").PN.   | US-PGPUB;<br>USPAT; USOCR   | OR  | OFF | 2008/05/13<br>19:06 |
| S13         | 141 | ("5166901").PN. OR<br>("5912839").URPN.   | US-PGPUB;<br>USPAT; USOCR   | ADJ | ON  | 2008/05/13<br>19:06 |
| S14         | 12  | 10/120521   | US-PGPUB;<br>USPAT; USOCR   | ADJ | ON  | 2008/05/14<br>09:39 |
| S15         | 6   | (("4177475") or<br>("4203123") or<br>("5363329") or<br>("6507061") or<br>("20030155589") or<br>("20040026730")).PN. | US-PGPUB;<br>USPAT; USOCR   | OR  | OFF | 2008/05/14<br>09:49 |
| S16         | 86  | (phase near2 change) and (germanium selenide)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/14<br>12:06 |
| S19         | 10  | (phase with chang\$3) same<br>(germanium selenide)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/14<br>12:11 |
| S21         | 17  | (phase with (chang\$3 or<br>transition)) same<br>(germanium selenide or<br>("ge.sub."\$2 "se.sub."\$2))             | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/14<br>12:17 |
| <b>S</b> 22 | 4   | (phase with transition) same (germanium selenide or ("ge.sub."\$2 "se. sub."\$2))                                   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/14<br>12:17 |
| S23         | 10  | (phase with crystal\$4)<br>same (germanium selenide<br>or ("ge.sub."\$2 "se.<br>sub."\$2))                          | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/14<br>12:19 |

| S24 | 1257 | crystallization speed  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/14<br>12:43 |
|-----|------|--|---|-----|-----|---------------------|
| S25 | 517  | S24 and (phase with (chang<br>\$3 or transition))  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/14<br>12:44 |
| S26 | 2    | S25 and pcram  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/14<br>12:44 |
| 329 | 161  | S24 and (phase with (chang<br>\$3 or transition)) and<br>chalcogen\$3  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/14<br>12:47 |
| S30 | 49   | (("20080001136") or ("5757690") or ("5973957") or ("5426614") or ("5832493") or ("5835413") or ("5882969") or ("5890191") or ("5896338") or ("5903500") or ("5912839") or ("5933026") or ("5937424") or ("5940861") or ("5940861") or ("5940861") or ("618259") or ("6141241") or ("6148360") or ("6150253") or ("6201739") or ("6223290") or ("623290") or ("6429732") or ("6584559") or ("6738873") or ("6888754") or ("6889287") or | US-PGPUB;<br>USPAT; USOCR   | OR  | OFF | 2008/05/14          |

|             |      | ("7057228") or ("7281090") or ("7284090") or ("7296119") or ("20010010656") or ("20030046605") or ("20050017287") or ("20050198463") or ("20050234785") or ("20050246573") or ("4488001") or ("5517631") or ("5617380") or ("6600098") or ("7152156") or |   |     |    |                     |
|-------------|------|--|---|-----|----|---------------------|
| S31         | 173  | (phase with chang\$3) and (chalcogen\$3) and PCRAM   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2008/05/14<br>13:57 |
| S32         | 437  | 257/613.cdls.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2008/05/14<br>13:58 |
| <b>S</b> 34 | 28   | 257/613.ccls. and ((phase with chang\$3) or pcram or pcrom)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2008/05/14<br>13:58 |
| S36         | 1833 | 257/314.cds.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2008/05/14<br>13:59 |
| S38         | 46   | 257/314.ccls. and ((phase with (chang\$3 or transition)) or pcram or pcrom)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2008/05/14<br>13:59 |

| S39 | 799 | 711/104.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/14<br>14:00 |
|-----|-----|--|---|-----|-----|---------------------|
| S40 | 85  | 711/103,104.ccls. and ((phase with (chang\$3 or transition)) or pcram or pcrom)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/14<br>14:00 |
| S41 | 9   | (("5166758") or<br>("5296716") or<br>("5414271") or<br>("5359205") or<br>("5341328") or<br>("5536947") or<br>("5534712") or<br>("5687112") or<br>("5825046")).PN.  | US-PGPUB;<br>USPAT; USOCR   | OR  | OFF | 2008/05/14<br>15:28 |
| S42 | 9   | S41 and (crystal\$4 with deposit\$3)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/14<br>15:31 |
| S43 | 1   | (US-20030155589-\$).did.   | US-PGPUB  | ADJ | ON  | 2008/05/15<br>10:29 |
| S44 | 0   | S43 and (crystallization with speed)   | US-PGPUB  | ADJ | ON  | 2008/05/15<br>10:30 |
| S45 | 0   | S43 and (speed)  | US-PGPUB  | ADJ | ON  | 2008/05/15<br>10:30 |
| S46 | 48  | (US-20080055970-\$ or US-20080001136-\$ or US-20030155589-\$ or US-20040026730-\$ or US-20070148869-\$ or US-20020168852-\$ or US-20030047765-\$ or US-20040053461-\$ or US-20050041467-\$ or US-20050162883-\$ or US-20070257246-\$ or US-20040026731-\$).did. or (US-5912839-\$ or US-7365411-\$ or US-7348209-\$ or US-6737312-\$ or US-6813178-\$ or US-6833559-\$ or US-6836423-\$ or US-6809362-\$ or US-6856002-\$ or US-6867114- | US-PGPUB;<br>USPAT  | ADJ | ON  | 2008/05/15<br>10:36 |

|     |     | \$ or US-6888155-\$ or US-6894304-\$ or US-6914801-\$ or US-6953720-\$ or US-7018863-\$ or US-7087919-\$ or US-7087454-\$ or US-7098068-\$ or US-7115992-\$ or US-7153721-\$ or US-7269079-\$ or US-7329558-\$ or US-5363329-\$ or US-4203123-\$).did. or (US-6507061-\$ or US-4177475-\$ or US-4803660-\$ or US-5100700-\$ or US-5479382-\$ or US-6150253-\$ or US-6563164-\$ or US-6750101-\$ or US-5166758-\$).did. |   |     |    |                     |
|-----|-----|--|---|-----|----|---------------------|
| S47 | 8   | S46 and (crystallization with speed)   | US-PGPUB;<br>USPAT  | ADJ | ON | 2008/05/15<br>10:36 |
| S48 | 2   | (phase with chang\$3) and (pcram or pcrom) and (crystal\$4 with deposit\$2 with state)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2008/05/15<br>11:22 |
| S49 | 291 | (phase with chang\$3) and (crystal\$4 with deposit\$2 with state)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2008/05/15<br>11:23 |
| S50 | 73  | (phase with chang\$3) and (crystal\$4 with deposit\$2 with state) and ("257" or "438").clas.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2008/05/15<br>11:24 |
| S54 | 157 | ((phase with change) or<br>pcram) and ((outer or<br>external or (top and<br>bottom)) with layer) same<br>(speed and temperature)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2008/05/19<br>17:02 |
| S58 | 891 | ((phase with change) or pcram) and (crystallization with speed)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2008/05/19<br>17:07 |
| S59 | 7   | ((phase with change) or<br>pcram) and ((crystallization<br>with speed) with (top or<br>external or bottom) with<br>layer)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2008/05/19<br>17:08 |

| S60 | 23  | ((phase with change) or<br>pcram) and ((crystallization<br>with speed) with (top or<br>external or outer or<br>bottom) with layer)                                | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/19<br>17:08 |
|-----|-----|---|---|-----|-----|---------------------|
| S62 | 34  | pcram and (crystallization<br>with (speed or<br>temperature))   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/19<br>17:21 |
| S63 | 9   | (("5166758") or<br>("5296716") or<br>("5414271") or<br>("5359205") or<br>("5341328") or<br>("5536947") or<br>("5534712") or<br>("5687112") or<br>("5825046")).PN. | US-PGPUB;<br>USPAT; USOCR   | OR  | OFF | 2008/05/19<br>17:35 |
| S66 | 18  | (titanium or tungsten or<br>niobium) with<br>(crystallization with speed)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/19<br>17:52 |
| S67 | 199 | (titanium or tungsten or<br>niobium) with<br>(crystallization with (time<br>or rate))   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/19<br>17:56 |
| S68 | 199 | (titanium or tungsten or<br>niobium) with<br>(crystallization with (time<br>or rate))   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON  | 2008/05/19<br>17:57 |

## 5/21/2008 4:24:26 PM

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